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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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Steve Klotz

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EXAMINER

ISMAIL, SHAWKI SAIIF

ART UNIT

PAPER NUMBER

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/661,764	<b>Applicant(s)</b> KLOTZ ET AL.	
	<b>Examiner</b> SHAWKI S. ISMAIL	<b>Art Unit</b> 2455	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 03 June 2009.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-4, 6 and 9-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4, 6, and 9-21 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

### **RESPONSE TO AMENDMENT**

1. This communication is responsive to the amendments and/or arguments received on June 3, 2009.

Claims 1-4, 6, and 9-21 are pending further examination.

### **The New Grounds of Rejection**

2. Applicant's amendment and arguments received on June 3, 2009 have been fully considered, however they are deemed to be moot in view of the new grounds of rejection.

### **Claim Rejections - 35 USC § 103**

3. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

4. Claims 1-4, 6, and 9-21 are rejected under 35 U.S.C. 103(a) as being unpatentable over **Anderson et al (Anderson)** U.S. Patent No. **5,850,388** in view of **Higgins et al.**, (Higgins) U.S. Patent No. **7,120,680**.

5. As to claim 1, Anderson teaches a method for analyzing a network, comprising:

processing a data trace captured from the network to determine a network topology (col. 9, lines 16-21 and col. 11, lines 57-67, the topology is determined by monitoring and recording stations that are in the network);

processing the data trace to determine errors in a network conversation (col. 12, lines 7-15, determining errors in the network);

processing the data trace to determine at least one metric for the network conversation (col. 4, lines 58 - col. 5, lines 27), network parameters are monitored and analyzed to see if they constitute events in the network);

displaying an interface screen to the user, the interface screen comprising a graphical topology representation, a determined error representation, and a representation of at least one determined metric (col. 22, lines 50-61, User Interface (UI) is capable of displaying any station-level statistic, network statistic, event information, and protocol distribution (discussed above) which the user requests to see and which the protocol analyzer instrument can capture and report to the UI);

wherein displaying the determined error representation further comprises highlighting a portion of a metric graph that corresponds to a particular error when a user selects the particular error (Fig. 20, illustrates how a split-screen display can be used to highlight one ISO protocol layer, instantly revealing usage by the protocols detected on the network).

Anderson does not explicitly disclose determining a network topology by determining the types of network elements present on the network.

Higgins discloses mechanisms and techniques operate in a computerized device to provide a network analyzer that identifies a useable network configuration in an existing network configuration. The network analyzer receives a preferred network configuration defining a preferred network topology and analyzes an existing network configuration to produce an existing network topology. The network analyzer then compares the preferred network topology

to the existing network topology, for example using a graph matching technique, to identify a useable network configuration within the existing network configuration that most closely supports operation of the preferred network configuration (see abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the teaching of Higgins into the system of Anderson in order to be able to identify the topology of a network and determine device configuration. Determining such information will allow the overall system to run more efficient.

6. As to claim 2, Anderson teaches the method of claim 1, wherein displaying further comprises providing a link in the interface screen wherein a user may select devices in the determined network topology and link to a second display to view errors corresponding to the selected devices (col. 30, lines 26-57, the user can obtain detailed definitions of statistics and events as well as possible causes of each type of event by double-clicking the PC's pointing device on the event or statistic displayed by the user interface. A window is opened on a display containing a detailed definition of the event or statistic as well as a brief discussion of the possible causes and ramifications of the event).).

7. As to claim 3, Anderson teaches the method of claim 1, wherein displaying further comprises:

allowing a user to select an analysis duration within the data trace in the interface screen (col. 17, lines 25-31);

processing the trace data for the selected analysis duration to determine a state of each device in the network topology for a predetermined number of intervals in the analysis duration (col. 17, lines 25-31); and

displaying at least one error and at least one metric for the analysis duration (col. 17, lines 25-31)

8. As to claim 4, Anderson teaches the method of claim 1, wherein displaying the determined error representation further comprises linking to a detailed error description in a second display when the user selects a particular error (col. 30, lines 26-39, the user can obtain detailed definitions of statistics and events as well as possible causes of each type of event by double-clicking the PC's pointing device on the event or statistic displayed by the user interface. A window is opened on a display containing a detailed definition of the event or statistic as well as a brief discussion of the possible causes and ramifications of the event).

9. As to claim 6, Anderson teaches a method for analyzing a network and displaying analysis results to a user in an interactive display, comprising:

capturing a data trace from the network with at least one analyzer (col. 4, lines 58 - col. 5, lines 27), an analyzer for monitoring and capturing data on a network);

processing the data trace to determine a topology of the network (col. 9, lines 16-21 and col. 11, lines 57-67, the topology is determined by monitoring and recording stations that are in the network);

processing the data trace to determine the presence of errors in communications between devices in the network topology (col. 12, lines 7-15, determining errors in the network);

displaying a graphical user interface to the user, the graphical user interface comprising a

Art Unit: 2455

first display screen containing a graphical representation of devices detected in the network topology (col. 22, lines 50-61, User Interface (UI) is capable of displaying any station-level statistic, network statistic, event information, and protocol distribution (discussed above) which the user requests to see and which the protocol analyzer instrument can capture and report to the UI); and

linking the user to a second display screen containing errors determined in association with a particular device in the topology when the user selects the particular device in the first (col. 30, lines 26-39, The user can obtain detailed definitions of statistics and events as well as possible causes of each type of event by double-clicking the PC's pointing device on the event or statistic displayed by the user interface. A window is opened on a display containing a detailed definition of the event or statistic as well as a brief discussion of the possible causes and ramifications of the event).

Anderson does not explicitly disclose determining a network topology by determining the types of network elements present on the network.

Higgins discloses mechanisms and techniques operate in a computerized device to provide a network analyzer that identifies a useable network configuration in an existing network configuration. The network analyzer receives a preferred network configuration defining a preferred network topology and analyzes an existing network configuration to produce an existing network topology. The network analyzer then compares the preferred network topology to the existing network topology, for example using a graph matching technique, to identify a useable network configuration within the existing network configuration that most closely supports operation of the preferred network configuration (see abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the teaching of Higgins into the system of Anderson in order to be able to identify the topology of a network and determine device configuration. Determining such information will allow the overall system to run more efficient.

10. As to claim 9, Anderson teaches the method of claim 6, further comprising linking the user to a third display screen having a description of a particular error when the user selects the particular error on the second display screen (col. 30, lines 26-39).

11. As to claim 10, Anderson teaches the method of claim 21, wherein displaying metrics comprises highlighting a portion of the displayed metrics corresponding to the particular error (col. 30, lines 26-39).

12. As to claim 11, Anderson teaches the method of claim 10, further comprising allowing the user to define a viewing duration and redisplaying the metrics using the user defined duration (col. 4, lines 58 - col. 5, lines 27).

13. As to claim 12, Anderson teaches the method of claim 11, wherein redisplaying the metrics further comprises recalculating a state of each device in the network for a plurality of intervals within the user selected duration and displaying the metrics for each of the intervals (col. 4, lines 58 - col. 5, lines 27).

14. As to claim 13, Anderson teaches the method of claim 6, wherein the processing steps further comprise filtering the data to eliminate invalid data prior to determining generating the topology or error lists (col. 10, lines 20-40).

15. As to claim 14, Anderson teaches a method for analyzing a network and presenting the network analysis to the user, comprising:



determining a network topology (col. 9, lines 16-21 and col. 11, lines 57-67, the topology is determined by monitoring and recording stations that are in the network);

determining communication errors between devices in the network topology (col. 12, lines 7-15, determining errors in the network);

determining at least one communication metric (col. 4, lines 58 - col. 5, lines 27), network parameters are monitored and analyzed to see if they constitute events in the network);

displaying the determined network topology to the user (col. 22, lines 50-61, User Interface (UI) is capable of displaying any station-level statistic, network statistic, event information, and protocol distribution (discussed above) which the user requests to see and which the protocol analyzer instrument can capture and report to the UI); and

providing links between each device in the determined topology and determined errors corresponding to each device, each link operating to display a screen illustrating a description of the error for the device and the location of the error in the network topology (col. 30, lines 26-39, The user can obtain detailed definitions of statistics and events as well as possible causes of each type of event by double-clicking the PC's pointing device on the event or statistic displayed by the user interface. A window is opened on a display containing a detailed definition of the event or statistic as well as a brief discussion of the possible causes and ramifications of the event).

Anderson does not explicitly disclose determining a network topology by determining the types of network elements present on the network.

Higgins discloses mechanisms and techniques operate in a computerized device to provide a network analyzer that identifies a useable network configuration in an existing network configuration. The network analyzer receives a preferred network configuration defining a

Art Unit: 2455

preferred network topology and analyzes an existing network configuration to produce an existing network topology. The network analyzer then compares the preferred network topology to the existing network topology, for example using a graph matching technique, to identify a useable network configuration within the existing network configuration that most closely supports operation of the preferred network configuration (see abstract).

It would have been obvious to one of ordinary skill in the art at the time of applicant's invention to incorporate the teaching of Higgins into the system of Anderson in order to be able to identify the topology of a network and determine device configuration. Determining such information will allow the overall system to run more efficient.

16. As to claim 15, Anderson teaches the method of claim 14, wherein determining network topology comprises analyzing a network data trace for device indicators (col. 4, lines 58 - col. 5, lines 27).

17. As to claim 16, Anderson teaches the method of claim 14, further comprising displaying the at least one communication metric in a graph (col. 4, lines 58 - col. 5, lines 27).

18. As to claim 17, Anderson teaches the method of claim 14, further comprising providing a selection window for the user to select an analysis duration, recalculating the errors and metrics for a plurality of intervals in the analysis duration, and displaying the errors and metrics for the analysis duration to the user (col. 4, lines 58 - col. 5, lines 27).

19. As to claim 18, Anderson teaches the method of claim 14, wherein determining a network topology and determining communication errors further comprises filtering trace data for invalid communications (col. 10, lines 20-40).

Art Unit: 2455

20. As to claim 19, Anderson teaches the method of claim 18, further comprising determining the topology, network errors, and the metrics based on the filtered trace data (col. 10, lines 20-40).

21. As to claim 20, Anderson teaches the method of claim 14, further comprising providing a selection window where the user can select metrics for inclusion in a graphical representation of the metrics (col. 10, lines 20-40).

22. As to claim 21, Anderson teaches the method of claim 9, wherein displaying a graphical user interface further comprises displaying metrics for the communications between devices in the network topology (col. 30, lines 26-39).

### Response to Arguments

23. Applicants' arguments have been fully considered however they are deemed moot in view of the new ground(s) of rejection.

### Contact Information

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Shawki S Ismail whose telephone number is 571-272-3985. The examiner can normally be reached on M-F 8:30 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Saleh Najjar can be reached at 571-272-4006. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished

Art Unit: 2455

applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

/Shawki S Ismail/  
Examiner, Art Unit 2455  
August 14, 2009